

REMARKS

Claims 1-2 and 6-28 are currently pending in this application.

In the August 13, 2007 Final Office Action (FOA), claims 1-2, 6, 7-15 and 16-20 were rejected under 35 U.S.C. §103(b) as being anticipated by Groves et al. (US2002/0158711). Claims 23-24 were rejected under 35 U.S.C. §103(a) as being unpatentable over Groves et al. in view of Brown et al. (US Patent No. 6,338,636). Claims 21-22 and 25-28 have been withdrawn from further consideration as being directed to a non-elected invention.

In accordance with the present response, independent claim 23 has been amended to define with more specificity the structure of the IC relating to the current source and corresponding functions which, as set forth below, is not disclosed or suggested by the prior art of record.

Applicant most respectfully requests entry of the foregoing amendment to independent claim 23 since it merely recites subject matter which has already been considered by the Examiner in connection with independent claim 1. Thus, no further consideration or search is necessitated by the amendment. In addition, the amendment substantially narrows any appealable issues because it presents claim 23 in a substantially narrowed form. Thus, entry of the foregoing amendment does not impose a burden on the PTO and entry thereof is most respectfully requested.

Applicant requests reconsideration of the application in light of the foregoing amendment and the following discussion.

Applicant respectfully traverses the prior art rejections of claims 1, 2, 6-20, 23 and 24 based on the teachings of Groves et al. and Brown et al.

Independent Claim 1

Independent claim 1 recites a current source coupled in series with the secondary conductor and the switch. The FOA asserts that Groves et al. teach this feature because the reference inherently discloses a current source coupled to a secondary conductor. In the remarks at page 5, the FOA further asserts that Groves et al. teach a *current source signal applied at [40] and coupled in series with the secondary coil and the switch*. Applicant respectfully disagrees with the FOA's characterization of the disclosure in Groves et al.

Groves et al. is directed to a circuit comprised of a switched inductor having primary and secondary spiral conductors. As recognized in the FOA, Groves et al. do not explicitly disclose a current source coupled to the secondary conductor. In Groves et al., the elements associated with reference numeral “40” correspond to input lines. These input lines are shown connected to inputs of a controller 38. There is absolutely nothing in Groves et al. that would suggest the specific structure and corresponding functions of the current source recited in independent claim 1, nor is such structure and corresponding function inherent in Groves et al.

While unclear from the disclosure in Groves et al., the FOA appears to presume that the signal on input lines 40 corresponds to current. However, even if the signal on input lines 40 did correspond to current, there is no teaching or suggestion in Groves et al. that the signal on input lines 40 is from a current source that is coupled in series, as asserted in the FOA, nor is such feature inherent in FOA. Nevertheless, while a current may flow through the circuit in Groves et al., there is no teaching in Groves et al. of the specific structural arrangement between the current source and the secondary conductor and the switch, as recited in independent claim 1. More specifically, as recognized in the FOA, Groves et al. do not disclose or suggest a current source coupled in series with the secondary conductor and the switch, as recited in independent claim 1. This specific structural arrangement between the current source and the secondary conductor and the switch is not present in Groves et al., and one of ordinary skill in the art would not recognize such structural feature to be present.

Nonetheless, independent claim 1 further recites that the current source is operable to control a current in the secondary conductor to flow in a first direction in the secondary conductor to reduce the inductance of the inductor and in a second direction in the secondary conductor to increase the inductance. No corresponding feature is disclosed or suggested by the prior art for record. For example, Groves et al. is concerned with decreasing the magnetic field of an inductor by the presence of one or more single loop windings positioned in proximity to the inductor. Groves et al. does not teach an increase or decrease in the inductance by a current source that controls the direction of the current through the secondary inductor, as recited in independent claim 1.

While acknowledging that Groves et al. fail to teach a current source operable to control a current in the secondary conductor to flow in a first direction in the secondary conductor to reduce the inductance of the inductor and in a second direction in the secondary conductor to

increase the inductance, the FOA asserts that such operation of the current source would have been an obvious design consideration in light of

Applicant's admission in the paper filed 4/27/2006. Applicant respectfully disagrees with the FOA's mischaracterization of Applicant's admission in the paper filed 4/27/2006 and the corresponding conclusion of obviousness in the rejection of the claims.

First, since the current source and corresponding operation recited in independent claim 1 is not taught nor inherent in Groves et al., as set forth above, one of ordinary skill in the art, at the time the invention was made, would not have found it obvious to modify Groves et al. to incorporate such current source and corresponding operation. Even assuming that such current source were inherent in Groves et al., because of the different arrangement or placement of such a current source, its operation would not and could not be in the manner as claimed. For example, there is no teaching or suggestion in Groves et al. that the signal on the input line 40 operates to *control a current in the secondary conductor to flow in a first direction in the secondary conductor to reduce the inductance of the inductor and in a second direction in the secondary conductor to increase the inductance*, as required by independent claim 1.

Moreover, Applicant notes that the admission in the paper filed 4/27/2006 relates to the various disclosed species being non-patentably distinct and obvious variants. Such admission does not relate at all to the current source and its specific operation recited in the claims as being a mere obvious variant. In this regard, Applicant respectfully invites the Examiner's attention to MPEP 818.03(b) which provides that *if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 USC 103(a) of the other invention*. Thus, the Examiner may use the evidence or admission if the Examiner finds one of the inventions unpatentable over the prior art. It should be noted, that just because Applicant has made such admission as provided for in MPEP 818.03(b), the Examiner may not modify a prior art reference under 35 USC 103(a) if such modification is not supported or capable of functioning in the manner as claimed.

Furthermore, the restriction identified three inventions grouped in Groups I, II and III and only one of which was elected—namely, Group I. For clarification, Applicant has elected *only one invention* which is currently under consideration. This *one invention* relates to claims 1-20 and 23-24 of Group I. Hence, Applicant's admission should not and cannot be used to reject limitations of the instant elected one invention which includes its dependent claims. This *one invention* has not yet been found unpatentable.

Independent Claim 23

Amended independent claim 23 is directed to an integrated circuit and recites many of the limitations of claim 1, including *a current source coupled in series with the secondary conductor and the switch, the current source being operable to control a current in the secondary conductor to flow in a first direction in the secondary conductor to reduce the inductance of the inductor and in a second direction in the secondary conductor to increase the inductance*. No corresponding structural combination is disclosed or suggested by Groves et al., as set forth above for amended independent claim 1.

Brown et al. do not cure the deficiencies of Groves et al. with respect to the current source and corresponding operation recited in amended independent claim 23. Accordingly, one of ordinary skill in the art would not have found it obvious to modify the references to attain the claimed subject matter.

Dependent Claims

Claims 2, 6-20 and 24 depend on and contain all of the limitations of independent claims 1 and 23, respectively, and, therefore, distinguish from the prior art of record at least in the manner set forth above for claims 1 and 23.

Moreover, Applicant respectfully submits that many of the dependent claims recite features that are clearly lacking from the applied reference and, therefore, do not acquiesce to any of the prior art rejections. For example, Groves et al. do not disclose or suggest a capacitor coupled in series with the secondary conductor and the switch, as recited in claim 11.

In view of the foregoing, Applicant respectfully submits that the prior art rejections of claims 1, 2, 6-20, 23 and 24 under 35 U.S.C 103(a) based on the teachings of Groves et al. and Brown et al. have been overcome and should be withdrawn.

Conclusion

In view of the foregoing discussion, Applicant respectfully submits that all claims in this application are in condition for allowance. Applicant respectfully request reconsideration and prompt allowance of all pending claims. Please charge any additional fees or credit any overpayment to deposit account number **17-0026**. The Examiner is invited to telephone the below-signed attorney to discuss this application.

Respectfully submitted,

Dated: February 13, 2008

By: /George Pappas, Reg#35065/
George Pappas
Reg. No. 35,065
Attorney for the Applicant

QUALCOMM Incorporated
5775 Morehouse Drive
San Diego, California 92121
Telephone: (858) 651-5797
Facsimile: (858) 658-2502